

From the INTERNATIONAL BUREAU

11184

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

SAKAI, Masami
Akasaka Office Heights
4-chome
Minato-ku, Tokyo 1070052
JAPON

13-5, Akasaka

Date of mailing (day/month/year)

23 February 2006 (23.02.2006)

Applicant's or agent's file reference

PCT-11184

IMPORTANT NOTIFICATION

International application No.

PCT/JP2004/002840

International filing date (day/month/year)

05 March 2004 (05.03.2004)

Applicant

SUMITOMO ELECTRIC INDUSTRIES LTD. et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Yoshiko Kuwahara

Facsimile No.+41 22 740 14 35

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PCT-11184	FOR FURTHER ACTION	See item 4 below
International application No. PCT/JP2004/002840	International filing date (<i>day/month/year</i>) 05 March 2004 (05.03.2004)	Priority date (<i>day/month/year</i>) 07 March 2003 (07.03.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant SUMITOMO ELECTRIC INDUSTRIES LTD.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Date of issuance of this report 13 February 2006 (13.02.2006)</td> </tr> <tr> <td style="padding: 5px;">Authorized officer Yoshiko Kuwahara Telephone No. +41 22 338 90 90</td> </tr> </table>	Date of issuance of this report 13 February 2006 (13.02.2006)	Authorized officer Yoshiko Kuwahara Telephone No. +41 22 338 90 90
Date of issuance of this report 13 February 2006 (13.02.2006)			
Authorized officer Yoshiko Kuwahara Telephone No. +41 22 338 90 90			

PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		Date of mailing (day/month/year)
Applicant's or agent's file reference PCT-11184		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/JP2004/002840	International filing date (day/month/year) 05.03.2004	Priority date (day/month/year) 07.03.2003
International Patent Classification (IPC) or both national classification and IPC		
Applicant SUMITOMO ELECTRIC INDUSTRIES LTD.		

1. This opinion contains indications relating to the following items:
- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/002840

Box No. I

Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/002840

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	4-8, 10, 11, 13-20	YES
	Claims	1-3, 9, 12	NO
Inventive step (IS)	Claims	5-7, 13, 14	YES
	Claims	1-4, 8-12, 15-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO
2. Citations and explanations:			
<p>Document 1: JP 7-181920 A (FUTABA CORPORATION), 21 July, 1995 (21.07.95), Fig.1, Fig.2, Fig.9, text the 23rd column-the 25th column, the 26th column - the 30th column, the 50th column - the 53rd column & US 5589738 A</p> <p>Document 2: JP 2001-7696 A (Hitachi,Ltd.), 12 January, 2001 (12.01.01), Fig.5, text the 28th column (Family none)</p> <p>Concerning claims 1-3, 9, 12</p> <p>Refer to Fig.2 and text of the 26th column-the 30th column of document 1. Noticeable difference is not recognized between an application concerned of claim 1 (2, 3, 9, and12) and the invention described in Fig.2 of publication 1.</p> <p>Concerning claims 4, 8</p> <p>In Fig.5 of document 2, a NAND circuit composed by connecting two MOS transistor which is <u>switching means</u> in series is described, and in Fig.1 and Fig.2 of document 1, the technique using a field emission type electronic emitter element as <u>switching means</u> is described.</p> <p>Using a field emission type electronic emitter element described in document 1 as <u>two switching means</u> used in a NAND circuit described in Fig.5 of document 2 are recognized to be subject matter at which a person skilled in the art can easily arrive.</p> <p>Concerning claims 10, 11</p> <p>In Fig.1 and text of the 23rd column-the 25th column of document 1, the NOT element which has similar configuration (an inverter circuit) as described in claim 10 is described.</p> <p>Also, similarly in Fig.9 and text of the 50th column-the 53rd column of document 1, the technique configuring a logical circuit using the NOR element and NOT element is described.</p> <p>The invention of an application concerned of claim 10, 11 are recognized to be subject matter at which a person skilled in the art can easily arrive by applying the technique described in Fig.9 of document 1 to the invention described in Fig.9 of document 1.</p> <p>Concerning claims 15-20</p> <p>The subject matter described in an application concerned of claim 15-20 are recognized to be within the ordinary design ability expected of a person skilled in the art appropriately.</p>			